

## AUTOMATIC FRAME IDENTIFICATION, DOOR STATUS, AND FRAME COUNT

### DETECTION SYSTEM

#### ABSTRACT

A system and method to automatically provide frame count, frame identification and status information to each frame within a modular, multi-frame tape library system. In the exemplary embodiment, signals are generated by each frame that have a delay value specific to each frame, which are accumulated and supplied to each frame to determine the total number of frames within the tape library system. A reference pulse is generated by each frame and compared to the delay signal generated by each frame to determine its own identification among the plurality of individual frames. Similarly, a status signal is generated by each frame and supplied to each frame which is indicative, for example, of a door open or other anomaly that can be monitored by all the frames within the tape library system. In the exemplary embodiment, each frame is adapted with a pulse generator and delay signal generator as well as a status register, and each frame is coupled together along a multi-channel bus for carrying the signals generated by each frame.